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ABSTRACT

This study investigated differences in reading skills, scope of reading, and quality of reading between ninth and tenth grade students in a developmental English program and ninth and tenth grade students in a regular program. No differences in reading skill were found among either ninth or tenth grade students tested. There was little difference in the amount of reading that students did, except as course requirements differed between the two programs. Ninth grade developmental students learned to appreciate more mature books than did students from regular classes; there was no difference between tenth grade students in both groups. There was a lack of dramatic difference between the two programs, which was partly due to the fact that the regular program was already characterized by principles similar to those of the developmental program, such as individualized instruction and a student-centered curriculum. Some evidence was found that students from lower socioeconomic classes did less well on the developmental program than on the regular program, despite the fact that the developmental program was originally devised for these students. (DI)

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A STUDY OF THE EFFECT OF THE DEVELOPMENTAL ENGLISH PROGRAMME ON STUDENT READING

Carol Reich

#109

October, 1972

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INTRODUCTION

Concern for tailoring the school programme to the developmental level of the child is most noticeable in the primary grades. The Language Study Centre has attempted to construct developmental programmes for secondary schools as well. The Developmental English Programme is one such attempt. A programme of English instruction for students in the four- and five-year programmes, it is currently implemented with ninth and tenth grade students. For details of the first year of the programme, see the Language Study Centre publication "An Individualized Developmental English Programme for Grade Nine, 1970."

The Developmental English Programme is based on the assumption that language matures through use, each developmental level growing out of the previous level, not imposed on the student from without. The touchstones of the programme are individualization, independence, and development.

The first responsibility of a developmental teacher is to identify the skills and interests of the individual student. His next responsibility is to expose the student to materials which are appropriate to his developmental level yet stimulate him to further growth. The final responsibility is to encourage the student's free response to those materials. Thus, in a developmental English class, students are more likely to be reading different books than the same books. They are more likely to be reading books which they have selected themselves than books the teacher has selected for them. They are more likely to be discussing the ideas in an essay and the effectiveness with which they are communicated than abstract standards of "correctness."

How effectively does this programme stimulate the growth of language skills? The answer to this question is of interest to students, parents, and teachers of English. It is also the concern of the Board's Fundamental Skills Sub-Committee which requested a study of its effectiveness (Board Minutes, September 29, 1970).

A pilot project was conducted in the Spring of 1971 using ninth grade students who had completed only one year of the programme. Its purpose was to see how well students did who had been in the programme for only a brief period of time and to test the instruments that had been developed for use in the larger study. The full-scale study was conducted in the Spring of 1972 using tenth graders who had been in the programme for two years. This was the first year that such students were available. The results of both studies are presented in this report.

The study was designed to answer four questions --

(1) Is the Developmental English Programme really different from the programmes usually found in the schools?

(2) How do students in developmental and non-developmental classes compare in reading skill?

(3) How do students in developmental and non-developmental classes compare in the scope of their reading?

(4) How do students in developmental and non-developmental classes compare in the quality of their reading?

Matched pairs of classes were chosen for study. One member of each pair was a class in the Developmental Reading Programme, and the other member was a similar class from the usual English programme. Classes were matched on various criteria, depending on available data. Six pairs of ninth grade classes were matched on grade point average, I.Q. test results, and September reading test scores. Sixteen pairs of tenth grade

classes were all matched by socio-economic and ethnic background. In the ninth grade study, some of the classes were from a collegiate institute and some were from a technical school. In the tenth grade study, all classes were from collegiate institutes. The 44 classes included about 1200 students.

The data were analyzed on a class-by-class basis. That is, for each instrument, the average score was found for each class and statistical tests were performed on class scores rather than on individual student scores. This was done because the study concerns the effect of different instructional programmes and these vary largely class-by-class, rather than student-by-student.

1. IS THE DEVELOPMENTAL ENGLISH PROGRAMME REALLY DIFFERENT FROM THE PROGRAMMES USUALLY FOUND IN THE SCHOOLS?

Just because two teachers are officially listed with different programmes doesn't mean that they do different things in the classroom. It was decided to find out how different developmental and non-developmental classes actually are by asking students to describe their class. The Developmental Practice Scale was designed to measure classroom practice. The scale consists of twelve items, like the one given below.

During discussions in Class N students only present ideas they have thought about very carefully.	During discussions in Class D students often try out spur-of-the-moment ideas on the class.

Each item describes two classes. Class D to the right represents ideal practice for a developmental class; Class N to the left represents the non-developmental practice. Each student was asked to indicate which of the two classes was most like his own. Students did this for each of the twelve descriptive pairs. All twelve pairs appear below in Table 1. In the administration of the scale, items were scrambled so that developmental and non-developmental descriptions each appeared on the right of the page half of the time and on the left half of the time.

The items were written by consulting a description of the programme given in the Language Study Centre publication mentioned on Page 1 of this report, and checked for accuracy by Language Study Centre personnel. Reading through the pairs on the scale will give a better understanding of the principles of the Developmental English Programme.

TABLE 1

DEVELOPMENTAL PRACTICE SCALE

Non-Developmental Descriptions	Developmental Descriptions
1. During discussions in Class N, students only present ideas they have thought about very carefully.	During discussions in Class D, students often try out spur-of-the-moment ideas on the class.
2. In Class N, the teacher usually decides what the class will study.	In Class D, each student usually studies what interests him.
3. During discussions in Class N, the teacher maintains order by choosing which student will speak.	During discussions in Class D, a student may speak whenever he wishes as long as no one else is speaking.
4. At the end of a period in Class N, everyone has learned the same thing and come to the same conclusions about the topic.	At the end of a period in Class D, different people have learned different things and come to different conclusions about the topic.
5. In Class N, the teacher talks more than the students.	In Class D, the students talk more than the teacher.
6. In Class N, the teacher plans the same activities for everyone in the class.	In Class D, the teacher plans different activities for different people.
7. In Class N, students learn that when you speak the most important thing is <u>how</u> you speak.	In Class D, students learn that when you speak the most important thing is your idea.
8. In Class N, most of the important ideas come from the teacher.	In Class D, most of the important ideas come from the students.
9. At the end of a period, students in Class N usually feel satisfied that their questions have been answered.	At the end of a period, students in Class D usually feel satisfied that more questions have been raised than answered.
10. Students in Class N learn composition by analyzing the works of great authors.	Students in Class D learn composition by doing a lot of writing.
11. The teacher in Class N feels that he should decide what books the students will read.	The teacher in Class D feels that the students should decide what books they will read.
12. The teacher for Class N always plans in advance exactly what the class will cover during a discussion period.	The teacher for Class D lets the discussion go where the students take it.

The developmental and non-developmental items represent extreme classroom practice. No real high school class is like any of the descriptions all of the time; however, a true developmental class will be more like the developmental descriptions than will a non-developmental class.

We can assess the extent to which classes follow the Developmental English Programme by looking at the overall class response to the Developmental Practice Scale. Lumping together all of the responses of all students in a class, we find a great deal of variation in the total number of times that developmental descriptions were chosen. In ninth grade, developmental classes averaged 63 per cent, and regular classes averaged 49 per cent.

This difference is significant[1], indicating that in practice as well as in theory, the Developmental Programme does differ from the regular English programme currently carried out in the schools. For tenth grade, developmental classes averaged 59 per cent developmental choices, and regular classes averaged 53 per cent. This difference is also significant, although it is less than the difference found in ninth grade (see Table 2).

In general, however, similarity between the two programmes is more striking than the difference. In tenth grade, developmental classes ranged from 46 per cent to 70 per cent developmental choices, and regular classes ranged from 38 per cent to 63 per cent. Although the range for regular classes is somewhat lower, there is a great deal of overlap. In fact, almost all the classes from both programmes fall within the middle range of 45 per cent to 65 per cent. Within the developmental group, three

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1 All comparisons were checked for significance using the Student t Test.

classes have a higher percentage, and within the regular group, two have a lower percentage.

This is not to say that official programme makes no difference. Looking at the matched pairs of classes in Table 2, we see that developmental classes made more developmental choices than did regular classes in 11 of the 16 matched pairs (significant sign test at $p = .105$). But programme does not make a dramatic difference, and if the measures of student achievement that were used in this study do not show a difference between groups, it is questionable whether this should be attributed to a failure of the programme itself, or to a failure of the programme to be sufficiently implemented. We should also note that the level of developmental choices in classes from both programmes is quite high. The regular programme already shows a great deal of individualization.

TABLE 2

PERCENTAGE OF DEVELOPMENTAL CHOICES BY
MATCHED PAIRS OF DEVELOPMENTAL AND REGULAR TENTH GRADE CLASSES

Pair	Developmental Classes	Regular Classes
1	58	48
2	67	59
3	56	57
4	46	38
5	60	49
6	56	51
7	64	51
8	55	52
9	52	61
10	70	57
11	57	60
12	60	63
13	61	59
14	56	45
15	53	63
16	69	42
Overall Average	59	53
9th Grade Overall Average	63	49

If we look at particular items of the Developmental Practice Scale, we find where differences between the two groups of classes actually occur (see Table 3). The biggest difference is in Item 11 (see Table 1), where many more students from developmental classes than regular classes report that they are allowed to choose what books they want to read. Developmental students also more frequently report that they learn composition by writing themselves rather than by analyzing the words of others (Item 10). They also feel that more important ideas come from the students than from the teacher (Item 8). A reversal occurs, however, with Item 3, where fewer developmental than regular students report that they may speak in class whenever they wish instead of waiting for the teacher to choose which student will speak.

Among the ninth grade classes there are more important differences. Developmental students more often report that each student studies what interests him (Item 2), and that a student may speak whenever he wishes (Item 3). Tenth grade developmental classes have not implemented these aspects of the programme.

The developmental principles represented by Items 6 and 9 have not been implemented at either grade level; developmental as well as regular teachers do not generally plan different activities for different students, nor does class discussion stimulate questions that remain unanswered.

TABLE 3

PERCENTAGE OF DEVELOPMENTAL CHOICES
OF DEVELOPMENTAL AND REGULAR CLASSES, ITEM BY ITEM

Item	Developmental Classes		Regular Classes	
	Gr. 9	Gr. 10	Gr. 9	Gr. 10
1. ...students often try out spur-of-the-moment ideas on the class	76	77	84	86
2. ...each student usually studies what interests him	50	19	23	13
3. ...a student may speak whenever he wishes	68	34	32	46
4. ...different people have learned different things	80	79	71	78
5. ...the students talk more than the teacher	71	65	47	71
6. ...the teacher plans different activities for different people	38	27	26	25
7. ...when you speak the most important thing is your idea	75	89	76	85
8. ...most important ideas come from the students	63	76	53	60
9. ...more questions have been raised than answered	43	42	54	37
10. ...learn composition by doing a lot of writing	60	67	69	47
11. ...students should decide what books they will read	79	85	37	35
12. the teacher...lets the discussion go where the students take it	58	52	37	57
TOTAL	63	58	51	53

2. HOW DO STUDENTS IN DEVELOPMENTAL AND NON-DEVELOPMENTAL CLASSES COMPARE IN READING SKILL?

The survey section of the Diagnostic Reading Test (Upper Level, Form B), a standardized test of reading achievement, was used to measure differences in basic reading skill. This test is administered to all developmental students in the beginning of the year to help teachers become acquainted with their individual capabilities and limitations. It is administered again at the end of the year to assess their growth. This test was also administered at the end of the year to students in the matched non-developmental classes.

A look at the scores shows that developmental and regular classes do not differ in their level of reading skill. Table 4 shows the average score for each group. Although regular classes score a bit higher than developmental classes, the difference is not statistically significant. The expected score on this test is 53 points for ninth graders, and 59 points for tenth graders.

TABLE 4

SPRING READING SCORES OF DEVELOPMENTAL AND REGULAR CLASSES

Grade	Developmental Classes	Regular Classes
Ninth Grade	54.3	55.4
Tenth Grade	56.4	58.8

3. HOW DO STUDENTS IN DEVELOPMENTAL AND NON-DEVELOPMENTAL CLASSES COMPARE IN THE SCOPE OF THEIR READING?

One of the principles of the Developmental English Programme is that if students are encouraged to read what interests them, they will enjoy their reading more and, as a result, read more.

Students were asked how much reading they had done in three different categories -- books assigned in English class, books read in English class which they had chosen themselves, and books read in their leisure time. Ninth graders were asked to report on their reading during the previous semester. Altogether, developmental students averaged 16.0 books, while regular students only read 10.9 books. Tenth graders were asked about their reading throughout the entire year. Developmental students averaged 19.7 books and regular students 17.4 books. But this difference is not significant. However, there was a difference in book categories. Developmental students read fewer "assigned" books in class and more books that they had chosen themselves, while regular students read more "assigned" books and fewer "chosen" books. Table 5 gives this breakdown.

TABLE 5

AMOUNT OF READING DONE BY TENTH GRADE STUDENTS DURING A SCHOOL YEAR

Type of Class	Books Assigned in Class	Books Chosen in Class	Books Read at Leisure	Total
Developmental Classes	2.8	7.8	9.1	19.7
Regular Classes	5.1	2.3	10.0	17.4

Ninth graders in developmental classes also read more "chosen" books than did regular classes, but they didn't read fewer "assigned" books. It is this sustained quantity of "assigned" reading, together with a greater quantity of "chosen" reading, which accounts for the larger number of total books read by ninth grade developmental classes over regular classes.

Neither ninth graders nor tenth graders differed in the amount of leisure time reading done by developmental and regular classes. There is little evidence, therefore, that the Developmental Reading Programme increases the amount of reading that students do, except as course requirements themselves differ between the two programmes.

Students were also asked how many times a week they read the newspaper and magazines. There were no group differences here. Developmental classes averaged 4.3 and regular classes averaged 4.2 newspaper readings a week; for magazines the averages were 2.6 and 2.5 respectively. These data were not analyzed for the ninth grade.

Considering books, newspapers, and magazines altogether, students from both programmes appear to be reading a good deal. In addition to "assigned" school work, they read about one book a month in their free time and keep up with current events.

4. HOW DO STUDENTS IN DEVELOPMENTAL AND NON-DEVELOPMENTAL CLASSES COMPARE IN THE QUALITY OF THEIR READING?

The goal of any reading programme is not only to encourage students to read more books, but to read better books. There is some evidence that the Developmental English Programme is successful in achieving this goal.

It is very difficult to assess the quality of books that students read, particularly books read during their leisure time that may not be familiar to the person doing the assessment. A method was devised in which students themselves described the books they had read in such a way that the descriptions could be scored for the quality of the book. It is called the Novel Maturity Scale.

Most teachers have an intuitive idea of what is a "good" as opposed to a "bad" book. There are generally recognized types of books which teachers tend to agree are substandard. These books are recognized by their themes (for example science fiction, mystery stories, westerns, romances). However, it was the assumption behind the Novel Maturity Scale that what differentiates a mature book from an immature book is not the theme itself but the number of themes. A little consideration will show this to be a reasonable assumption. For example, a James Bond novel is not substandard because it is a detective story -- The Hound of the Baskervilles is also a detective story. A Clara Barton story is not substandard because it is a romance -- so is Anna Karenina. What differentiates stories about James Bond and Clara Barton from The Hound of the Baskervilles and Anna Karenina is not the theme alone, but the fact that the substandard books have only one theme. They are very simple

books, treating only one aspect of life, presenting only a few ideas. They do not mirror life in its complexity or richness.

It is interesting to note that the two substandard novels are easily categorized, and are referred to as members of a certain class of books -- detective stories and romances. The two examples of mature books, on the other hand, defy categorization. They are unique and stand alone.

Since students in the Developmental English Programme are allowed more freedom to read what interests them, they may begin by reading simple and substandard works. However, as they become immersed in literature at their own level and are exposed by the teacher to materials which stimulate their development, they should grow and move onto higher levels.

The Novel Maturity Scale assesses a student's level by measuring the thematic richness of the books he enjoys. Students begin the scale by naming their favourite novel read during the semester. They then study a list of themes that are common in fiction and indicate which of the themes appeared in their favourite novel. The list of themes, gleaned from standard guides on books for teenagers, is given in Table 6.

The maturity level for each class was calculated by finding the average number of themes checked by students in that class. Comparing ninth grade classes, it was found that developmental classes did indeed read more mature books than did regular classes. However, the same was not true for tenth grade, where there were no differences between the two groups. This may be due to the fact that there was less difference between tenth grade developmental and regular classes in classroom practice than there was in the ninth grade. In the tenth grade, the difference

in response to the Developmental Practice Scale, although significant, was not large. The implementation of the programme may not have been sufficient to produce an effect. Or, it is possible that the programme has an effect which is only temporary, resulting in greater growth during the first year a student is involved, but declining in potency during later years.

It is interesting to look at the popularity of various themes independent of programme. Table 6 also lists the percentage of students who said that their favourite novel contained each of the 22 themes on the list.

The first four themes can be categorized as imaginative. "Horror" and "Science Fiction" are among them. Very few students named books containing any of these themes. Numbers 5 to 7 are action themes. Stories of "Physical Danger and Adventure" were very popular; 67 per cent of the students checked this topic. "Mystery" was fairly popular, but "Cars and Sports" came in very low. Themes 8 to 10 deal with the organization of society. They are all moderately popular.

Various aspects of personal life are represented in Themes 11 to 16. These themes run the gamut of popularity, from 14 per cent for "Possible Careers" to 51 per cent for "Lives of Adults."

The final six themes cover moral and philosophical issues. These also show wide variation in popularity. "Religion" is the lowest, but "Choosing Between Right and Wrong" is quite high. "Politics" is also quite low. "Overcoming Problems and Difficulties" is very high with 66 per cent, right behind "Physical Danger and Adventure."

TABLE 6

PERCENTAGE OF STUDENTS WHOSE FAVOURITE NOVEL CONTAINED EACH LISTED TOPIC

	Theme	Percentage of Students
1.	Fantasy	22
2.	Supernatural Beings or Events	14
3.	Horror	21
4.	Science Fiction	16
5.	Cars and Sports	11
6.	Mystery	39
7.	Physical Danger and Adventure	67
8.	Life in Other Cultures	36
9.	Life in Other Periods of History	38
10.	Life in Our Own Society	31
11.	Sex	28
12.	Love and Romance	46
13.	Home and Family Life	36
14.	Lives of Young People	48
15.	Lives of Adults	51
16.	Possible Careers	14
17.	Making Personal Decisions	53
18.	Overcoming Problems and Difficulties	66
19.	Social Injustice	44
20.	Politics	28
21.	Religion	23
22.	Choosing Between Right and Wrong	54

A SERENDIPITOUS FINDING: THE EFFECT OF SOCIAL CLASS

In order to choose matched pairs of classes, we had compiled information on the socio-economic background of the tenth grade classes in our study. In the course of analyzing the data, we discovered that a large relationship exists between the socio-economic level of a class and its level of reading skill ($r = .54$). This is not surprising since the same thing has been found when analyzing data on individual students (Wright & Reich, 1972).

We said before that there were no differences in reading skill between developmental and regular classes; however, ignoring the programme a class was supposed to be following and looking at a class's actual score on the Developmental Practice Scale, we discovered that classes which most closely followed developmental principles had better readers ($r = .48$).

Now we are faced with two influences on reading skill -- classroom programme and student background. Which is the more important? We can answer this question by using a statistical technique called "partial correlations." Using this technique we can eliminate the effect of classroom practice on reading skill and examine only the effect of socio-economic background. When we do this the correlation between background and reading skill drops from .54 to .42. We can also eliminate the effect of socio-economic background on reading and examine only the effect of classroom practice. When we do this the correlation between programme and reading makes a much bigger drop from .48 to .32. Since a much larger relationship remains between background and reading than between programme and reading, we can say that background is more important.

What about the other measures investigated in this study? One hoped-for result of the Developmental Reading Programme is that students would read more mature books. This is not the case; there is no significant relationship regardless of whether one looks at the official programme of a class or at its actual programme. However, a relationship does exist between novel maturity and socio-economic background ($r = .39$), again indicating that background is more important than programme.

We also inadvertently discovered that a large relationship exists between socio-economic background and programme ($r = .45$). Classes with higher socio-economic backgrounds followed developmental principles more closely than classes with lower socio-economic backgrounds. In fact, the socio-economic background of a class was as important in determining the programme a class was actually following as the official designation of that class.

Should teachers be encouraged to provide the Developmental Reading Programme for students regardless of their socio-economic background? A tentative answer to this question emerges from a reanalysis of the data in light of background as an additional variable.

We can divide our 16 matched class pairs into two groups, one group composed of the 8 class pairs with the highest background ratings, and the second group composed of the 8 class pairs with the lowest ratings. Now, if we look at reading scores, we again find that there is no difference between developmental and regular classes regardless of the social background of the classes. There are again no differences in the amount of reading done. But we do find differences if we look at the maturity of student-preferred reading.

We find no difference on the Novel Maturity Scale between developmental and regular classes when looking at the higher socio-economic classes. But when looking at the lower socio-economic classes, a difference does emerge, and it is in favour of the regular classes. That is, students not on the Developmental Reading Programme have developed more mature reading tastes (Table 7). These students on the regular programme show a level of maturity which is similar to that of the higher socio-economic students.

This finding is surprising since the Developmental English Programme was originally devised for use with lower-class students (Fader & McNeil, 1966). However, it may be that success with such students requires teaching skills which could not be developed in the short time that the programme has been in operation.

TABLE 7

AVERAGE NOVEL MATURITY SCORES BY PROGRAMME AND SOCIO-ECONOMIC STATUS (SES)

SES Level	Developmental Classes	Regular Classes
High SES	8.35	8.02
Low SES	7.36	8.30

SUMMARY AND CONCLUSIONS

The Developmental Reading Programme emphasizes individualization of instruction and student-centred learning. A comparison of students in this programme with students receiving instruction in the regular English programme revealed very few differences.

There were no differences in reading skill among either the ninth or tenth grade students who were tested. There was little difference in the amount of reading that students did, considering books, newspapers and magazines, except as course requirements themselves differed between the two programmes.

It was found that among the ninth graders, developmental students had learned to appreciate more mature books than had students from regular classes; however, there was no difference in tenth grade. This may be due to the fact that there were fewer actual differences between the two programmes in tenth grade than in ninth grade.

It was discovered that the various principles of the Developmental Reading Programme were implemented with varying degrees of success. The lack of a dramatic difference between the two programmes is partly due to the fact that the regular programme is already characterized by a great deal of individualization and student centredness.

Analyzing the data with reference to the socio-economic background of the students in a class, some evidence was discovered that students from lower socio-economic classes did less well on the Developmental Reading Programme than on the regular programme. This is surprising in view of the fact that the programme was originally devised for such

students. It may be due to different learning styles which students from different backgrounds have developed, or to the imperfect implementation of the programme.

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